Application No. 08/477,316
Attorney's Docket No. 028723-060

REMARKS

Entry of the foregoing, and further and favorable reconsideration of the subject application is respectfully requested.

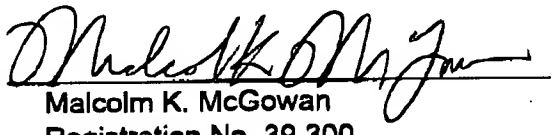
Applicants gratefully acknowledge the courtesy shown to their undersigned representative by the Examiner in telephone discussions on 23 and 27 August 2001. By the present Amendment, the title of the application has been amended to more precisely describe the claimed invention. Claims 1, 48, and 50 have been amended to delete specific reference to chromosomes 3 and 17. New claims 59 and 60, which depend from claims 48 and 50 respectively, recite the use of probes with complexity greater than 100 kb. These new claims derive support from at least pages 44-45 of the present specification. No new matter has been added.

Further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

In the event that there are any questions concerning this amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of the application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: 
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Application No. 08/477,316
Attorney Docket No. 028750-060

Attachment to Amendment dated August 27, 2001

Marked-up Claims 1, 48 and 50

1. (Five times Amended) A method of staining targeted interphase chromosomal material based upon a nucleic acid segment employing a unique sequence high complexity nucleic acid probe of greater than about 50,000 bases, wherein said targeted chromosomal material is a genetic rearrangement associated with at least one chromosome [3 and/or chromosome 17] in humans, said method comprising employing said chromosomal material and a unique sequence high complexity nucleic acid probe of greater than about 50,000 bases in *in situ* hybridization, wherein the chromosomal material is present in a morphologically identifiable cell nucleus; allowing said probe to bind to said targeted chromosomal material; and detecting said bound probe, wherein bound probe is indicative of the presence of target chromosomal material.

48. (Three Times Amended) A method of staining targeted interphase chromosomal material based upon a nucleic acid segment employing a unique sequence high complexity nucleic acid probe of greater than about 40 kb, wherein said targeted chromosomal material is a genetic rearrangement associated with at least one chromosome [3 and/or chromosome 17] in humans, said method comprising contacting said chromosomal material with a unique sequence high complexity nucleic acid probe of greater than about 40 kb, wherein the chromosomal material is present in a morphologically identifiable cell nucleus; allowing said

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probe to bind to said targeted chromosomal material; and detecting said bound probe, wherein bound probe is indicative of the presence of target chromosomal material.

50. (Three Times Amended) A method of staining targeted interphase chromosomal material based upon a nucleic acid segment employing a unique sequence high complexity nucleic acid probe of greater than about 50,000 bases, wherein said targeted interphase chromosomal material is a genetic rearrangement associated with at least one chromosome [3 and/or chromosome 17] in humans, said method comprising contacting said interphase chromosomal material with a unique sequence high complexity nucleic acid probe of greater than about 50,000 bases, wherein the chromosomal material is present in a morphologically identifiable cell nucleus; allowing said probe to bind to said targeted interphase chromosomal material; and detecting said bound probe, wherein bound probe is indicative of the presence of target interphase chromosomal material.

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this Communication is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature Sally Dankers Date: 8-27-01